TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Form PCT/IPEA/416
PCG-9002WO		
International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/JP2004/013183	03.09.2004	04.09.2003

International Patent Classification (IPC) or national classification and IPC

A61K39/395;A61P35/00, G01N33/574,33/543,C07K16/18

Applicant

ABURATANI, Hiroyuki

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
   a. ☐ *(sent to the applicant and to the International Bureau)* a total of _____ sheets, as follows:
      ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
      ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
   b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s))
      _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items:
   - ☒ Box No. I Basis of the report
   - ☐ Box No. II Priority
   - ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - ☐ Box No. IV Lack of unity of invention
   - ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - ☐ Box No. VI Certain documents cited
   - ☐ Box No. VII Certain defects in the international application
   - ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/013183

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

☐ international search (Rule 12.3 and 23.1(b))

☐ publication of the international application (Rule 12.4)

☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☒ the international application as originally filed/furnished

☐ the description:

pages _____ as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☐ the claims:

nos. _____ as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* _____ received by this Authority on _____

nos.* _____ received by this Authority on _____

☐ the drawings:

sheets _____ as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

* *If item 4 applies, some or all of those sheets may be marked "superseded."*

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/013183

Box No. III **Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application

☒ claims Nos. 12-13

because:

☒ the said international application, or the said claims Nos. 12-13
relate to the following subject matter which does not require an international preliminary examination (*specify*):

The inventions set forth in claims 12 to 13 correspond either to a method for the treatment of the human body by means of therapy or to a diagnostic method for the human body (PCT Rule 67.1 (iv)).

☐ the description, claims or drawings *(indicate particular elements below)* or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. _____ are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 12-13

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form
- ☐ has not been furnished
- ☐ does not comply with the standard

the computer readable form
- ☐ has not been furnished
- ☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See Supplemental Box for further details.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/013183

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-11	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-11	NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

The following documents are cited in the international search report.

Document 1: WO 03/000883 A1 (Chugai Pharmaceutical Co., Ltd.)

Document 2: Database Medline on STN, T. ROSKAMS et al., "Heparan sulphate proteoglycan expression in human primary liver tumors," Journal of Pathology, 1998, Vol. 185, No. 3, pages 290 to 297, abstract, Medline Accession No. 1998444445

Claims 1 to 6

Document 1 indicates that anti-glypican 3 antibodies exhibit an antibody dependent cell-mediated cytotoxicity activity or a compliment dependent cytotoxicity activity, and that anti-glypican 3 antibodies can be used as cancer cell proliferation inhibitors. Therein, document 1 further indicates that the cells are hepatic cancer cells, that the antibodies are monoclonal antibodies, and that said antibodies are also humanized antibodies or chimeric antibodies.

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The inventions that are set forth in the abovementioned claims involve bile duct cancer cells, and thus differ from the invention that is disclosed in document 1, which does not make any specific disclosures in relation to the feature in question. However, document 2 indicates that hepatic cancers, including both hepatocellular carcinomas as well as cholangiocarcinomas, have been found to express heparan sulfate proteoglycans such as glypican, and thus it would have been obvious to a person skilled in the art of the technical field in question to select bile duct cancer cells as the hepatic cancer cells and to use anti-glypican 3 antibodies in order to treat said cancer when implementing the invention that is disclosed in document 1.

In addition, the effects that result therefrom cannot be considered to be significant.

Claims 7 to 11

Document 1 suggests that it is possible to use glypican 3 as a marker for hepatocellular carcinomas (in particular, refer to page 2), while document 2 indicates that both hepatocellular carcinomas and cholangiocarcinomas include glypican and promote the expression of heparan sulfate proteoglycans. Such being the case, it would have been obvious to a person skilled in the art of the technical field in question to employ anti-glypican 3 antibodies in order to diagnose bile duct cancer.

In addition, the effects that result therefrom cannot be considered to be significant.

As a result, the inventions that are set forth in claims 1 to 11 are novel in relation to documents 1 and

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

2, but do not involve an inventive step in the light of the documents in question.

特許協力条約

PCT

特許性に関する国際予備報告（特許協力条約第二章）

（法第12条、法施行規則第56条）
〔PCT36条及びPCT規則70〕

出願人又は代理人の書類記号 PCG-9002WO	今後の手続きについては、様式PCT／IPEA／416を参照すること。	
国際出願番号 PCT／JP2004／013183	国際出願日（日.月.年） 03. 09. 2004	優先日（日.月.年） 04. 09. 2003
国際特許分類（IPC） Int.Cl.[7]	A61K 39/395, A61P 35/00, G01N 33/574, 33/543, C07K 16/18	
出願人（氏名又は名称） 油谷 浩幸		

1．この報告書は、PCT35条に基づきこの国際予備審査機関で作成された国際予備審査報告である。
法施行規則第57条（PCT36条）の規定に従い送付する。

2．この国際予備審査報告は、この表紙を含めて全部で 5 ページからなる。

3．この報告には次の附属物件も添付されている。

a．☐ 附属書類は全部で ＿＿＿＿＿＿ ページである。

☐ 補正されて、この報告の基礎とされた及び／又はこの国際予備審査機関が認めた訂正を含む明細書、請求の範囲及び／又は図面の用紙（PCT規則70.16及び実施細則第607号参照）

☐ 第Ⅰ欄4．及び補充欄に示したように、出願時における国際出願の開示の範囲を超えた補正を含むものとこの国際予備審査機関が認定した差替え用紙

b．☐ 電子媒体は全部で ＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿ （電子媒体の種類、数を示す）。
配列表に関する補充欄に示すように、コンピュータ読み取り可能な形式による配列表又は配列表に関連するテーブルを含む。（実施細則第802号参照）

4．この国際予備審査報告は、次の内容を含む。

- ☑ 第Ⅰ欄 国際予備審査報告の基礎
- ☐ 第Ⅱ欄 優先権
- ☑ 第Ⅲ欄 新規性、進歩性又は産業上の利用可能性についての国際予備審査報告の不作成
- ☐ 第Ⅳ欄 発明の単一性の欠如
- ☑ 第Ⅴ欄 PCT35条(2)に規定する新規性、進歩性又は産業上の利用可能性についての見解、それを裏付けるための文献及び説明
- ☐ 第Ⅵ欄 ある種の引用文献
- ☐ 第Ⅶ欄 国際出願の不備
- ☐ 第Ⅷ欄 国際出願に対する意見

国際予備審査の請求書を受理した日 12. 10. 2004	国際予備審査報告を作成した日 01. 09. 2005
名称及びあて先 日本国特許庁（IPEA／JP） 郵便番号100－8915 東京都千代田区霞が関三丁目4番3号	特許庁審査官（権限のある職員） 4C 9261 八原 由美子 電話番号 03－3581－1101 内線 3452

様式PCT／IPEA／409（表紙）（2004年1月）

特許性に関する国際予備報告

国際出願番号 PCT／JP2004／013183

第Ⅰ欄 報告の基礎

1．この国際予備審査報告は、下記に示す場合を除くほか、国際出願の言語を基礎とした。

☐ この報告は、＿＿＿＿＿＿ 語による翻訳文を基礎とした。
それは、次の目的で提出された翻訳文の言語である。
☐ PCT規則12.3及び23.1(b)にいう国際調査
☐ PCT規則12.4にいう国際公開
☐ PCT規則55.2又は55.3にいう国際予備審査

2．この報告は下記の出願書類を基礎とした。（法第6条（PCT14条）の規定に基づく命令に応答するために提出された差替え用紙は、この報告において「出願時」とし、この報告に添付していない。）

☑ 出願時の国際出願書類

☐ 明細書
第＿＿＿＿＿＿ ページ、出願時に提出されたもの
第＿＿＿＿＿＿ ページ*、＿＿＿＿＿＿ 付けで国際予備審査機関が受理したもの
第＿＿＿＿＿＿ ページ*、＿＿＿＿＿＿ 付けで国際予備審査機関が受理したもの

☐ 請求の範囲
第＿＿＿＿＿＿ 項、出願時に提出されたもの
第＿＿＿＿＿＿ 項*、PCT19条の規定に基づき補正されたもの
第＿＿＿＿＿＿ 項*、＿＿＿＿＿＿ 付けで国際予備審査機関が受理したもの
第＿＿＿＿＿＿ 項*、＿＿＿＿＿＿ 付けで国際予備審査機関が受理したもの

☐ 図面
第＿＿＿＿＿＿ ページ／図、出願時に提出されたもの
第＿＿＿＿＿＿ ページ／図*、＿＿＿＿＿＿ 付けで国際予備審査機関が受理したもの
第＿＿＿＿＿＿ ページ／図*、＿＿＿＿＿＿ 付けで国際予備審査機関が受理したもの

☐ 配列表又は関連するテーブル
配列表に関する補充欄を参照すること。

3．☐ 補正により、下記の書類が削除された。

☐ 明細書 第＿＿＿＿＿＿ ページ
☐ 請求の範囲 第＿＿＿＿＿＿ 項
☐ 図面 第＿＿＿＿＿＿ ページ／図
☐ 配列表（具体的に記載すること） ＿＿＿＿＿＿
☐ 配列表に関連するテーブル（具体的に記載すること） ＿＿＿＿＿＿

4．☐ この報告は、補充欄に示したように、この報告に添付されかつ以下に示した補正が出願時における開示の範囲を超えてされたものと認められるので、その補正がされなかったものとして作成した。（PCT規則70.2(c)）

☐ 明細書 第＿＿＿＿＿＿ ページ
☐ 請求の範囲 第＿＿＿＿＿＿ 項
☐ 図面 第＿＿＿＿＿＿ ページ／図
☐ 配列表（具体的に記載すること） ＿＿＿＿＿＿
☐ 配列表に関連するテーブル（具体的に記載すること） ＿＿＿＿＿＿

＊ 4．に該当する場合、その用紙に "superseded" と記入されることがある。

特許性に関する国際予備報告

国際出願番号 PCT／JP2004／013183

第Ⅲ欄 新規性、進歩性又は産業上の利用可能性についての見解の不作成

次に関して、当該請求の範囲に記載されている発明の新規性、進歩性又は産業上の利用可能性につき、次の理由により審査しない。

☐ 国際出願全体

☑ 請求の範囲 １２－１３

理由：

☑ この国際出願又は請求の範囲 １２－１３ は、国際予備審査をすることを要しない次の事項を内容としている（具体的に記載すること）。

請求の範囲１２－１３に記載のものは、治療による人体の処置方法、及び、人体の診断方法に該当する（ＰＣＴ規則67.1(iv)）。

☐ 明細書、請求の範囲若しくは図面（次に示す部分）又は請求の範囲 ＿＿＿＿＿＿＿＿ の記載が、不明確であるため、見解を示すことができない（具体的に記載すること）。

☐ 全部の請求の範囲又は請求の範囲 ＿＿＿＿＿＿＿＿ が、明細書による十分な裏付けを欠くため、見解を示すことができない。

☑ 請求の範囲 １２－１３ について、国際調査報告が作成されていない。

☐ ヌクレオチド又はアミノ酸の配列表が、実施細則の附属書Ｃ（塩基配列又はアミノ酸配列を含む明細書等の作成のためのガイドライン）に定める基準を、次の点で満たしていない。

書面による配列表が
- ☐ 提出されていない。
- ☐ 所定の基準を満たしていない。

コンピュータ読み取り可能な形式による配列表が
- ☐ 提出されていない。
- ☐ 所定の基準を満たしていない。

☐ コンピュータ読み取り可能な形式によるヌクレオチド又はアミノ酸の配列表に関連するテーブルが、実施細則の附属書Ｃの２に定める技術的な要件を、次の点で満たしていない。

- ☐ 提出されていない。
- ☐ 所定の技術的な要件を満たしていない。

☐ 詳細については補充欄を参照すること。

特許性に関する国際予備報告

国際出願番号 PCT／JP2004／013183

第Ⅴ欄 新規性、進歩性又は産業上の利用可能性についての法第12条（PCT35条(2)）に定める見解、それを裏付ける文献及び説明

1. 見解

新規性（N）	請求の範囲	1－11	有
	請求の範囲		無
進歩性（IS）	請求の範囲		有
	請求の範囲	1－11	無
産業上の利用可能性（IA）	請求の範囲	1－11	有
	請求の範囲		無

2. 文献及び説明（PCT規則70.7）

国際調査報告において、以下の文献が提示された。

文献1：WO 03／000883 A1（中外製薬株式会社）

文献2：Database Medline on STN, Roskams T et al., Heparan sulphate proteoglycan expression in human primary liver tumors, Journal of pathology, 1998, Vol.185, No.3, p.290-297, abstract, Medline Accession no.1998444445

・請求の範囲1－6に対して

文献1には、抗グリピカン3抗体が、抗体依存性細胞傷害活性、または、補体依存性細胞傷害活性を有し、癌細胞増殖抑制剤として用い得ることが記載されている。同文献には、さらに、細胞が肝癌細胞であること、抗体がモノクローナル抗体であること、抗体がヒト化またはキメラ化されたのものである点についても記載されている。

上記請求の範囲に記載の発明においては、胆管癌細胞である点で、その明示のない文献1に記載の発明と相違するが、文献2には、肝臓癌である、肝細胞癌も、胆管細胞癌も、ともに、グリピカン等の、ヘパラン硫酸プロテオグリカンの発現が見られることが記載されており、文献1に記載の発明において、肝癌細胞として、胆管癌を選択し、抗グリピカン3抗体を、該癌の治療用途に用いることは、当該分野の専門家にとって自明である。

そして、その効果も格別なものとは認められない。

・請求の範囲7－11に対して

文献1には、グリピカン3について肝細胞癌マーカとして利用できる可能性が示唆されており（特に、第2頁参照のこと）、かつ、文献2には、肝細胞癌においても、胆管細胞癌においても、ともに、グリピカンを含む、ヘパラン硫酸プロテオグリカンの発現が亢進していることが示されているから、抗グリピカン3抗体を、胆管癌の診断の用途に用いることは当該分野の専門家にとって自明である。

そして、その効果も格別なものとは認められない。

補充欄

いずれかの欄の大きさが足りない場合

第 V.2　　欄の続き

したがって、請求の範囲１－１１に記載のものは、文献１，２に対して、新規性は有するが、進歩性を有さない。

TRANSLATION

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Form PCT/IPEA/416
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

☐ international search (Rule 12.3 and 23.1(b))

☐ publication of the international application (Rule 12.4)

☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☒ the international application as originally filed/furnished

☐ the description:

pages _____ as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☐ the claims:

nos. _____ as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* _____ received by this Authority on _____

nos.* _____ received by this Authority on _____

☐ the drawings:

sheets _____ as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

* *If item 4 applies, some or all of those sheets may be marked "superseded."*

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/013183

Box No. III **Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application

☒ claims Nos. 12-13

because:

☒ the said international application, or the said claims Nos. 12-13
relate to the following subject matter which does not require an international preliminary examination (*specify*):

The inventions set forth in claims 12 to 13 correspond either to a method for the treatment of the human body by means of therapy or to a diagnostic method for the human body (PCT Rule 67.1 (iv)).

☐ the description, claims or drawings *(indicate particular elements below)* or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. _____ are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 12-13

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form
- ☐ has not been furnished
- ☐ does not comply with the standard

the computer readable form
- ☐ has not been furnished
- ☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See Supplemental Box for further details.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/013183

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-11	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-11	NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

The following documents are cited in the international search report.

Document 1: WO 03/000883 A1 (Chugai Pharmaceutical Co., Ltd.)

Document 2: Database Medline on STN, T. ROSKAMS et al., "Heparan sulphate proteoglycan expression in human primary liver tumors," Journal of Pathology, 1998, Vol. 185, No. 3, pages 290 to 297, abstract, Medline Accession No. 1998444445

Claims 1 to 6

Document 1 indicates that anti-glypican 3 antibodies exhibit an antibody dependent cell-mediated cytotoxicity activity or a compliment dependent cytotoxicity activity, and that anti-glypican 3 antibodies can be used as cancer cell proliferation inhibitors. Therein, document 1 further indicates that the cells are hepatic cancer cells, that the antibodies are monoclonal antibodies, and that said antibodies are also humanized antibodies or chimeric antibodies.

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The inventions that are set forth in the abovementioned claims involve bile duct cancer cells, and thus differ from the invention that is disclosed in document 1, which does not make any specific disclosures in relation to the feature in question. However, document 2 indicates that hepatic cancers, including both hepatocellular carcinomas as well as cholangiocarcinomas, have been found to express heparan sulfate proteoglycans such as glypican, and thus it would have been obvious to a person skilled in the art of the technical field in question to select bile duct cancer cells as the hepatic cancer cells and to use anti-glypican 3 antibodies in order to treat said cancer when implementing the invention that is disclosed in document 1.

In addition, the effects that result therefrom cannot be considered to be significant.

Claims 7 to 11

Document 1 suggests that it is possible to use glypican 3 as a marker for hepatocellular carcinomas (in particular, refer to page 2), while document 2 indicates that both hepatocellular carcinomas and cholangiocarcinomas include glypican and promote the expression of heparan sulfate proteoglycans. Such being the case, it would have been obvious to a person skilled in the art of the technical field in question to employ anti-glypican 3 antibodies in order to diagnose bile duct cancer.

In addition, the effects that result therefrom cannot be considered to be significant.

As a result, the inventions that are set forth in claims 1 to 11 are novel in relation to documents 1 and

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

2, but do not involve an inventive step in the light of the documents in question.